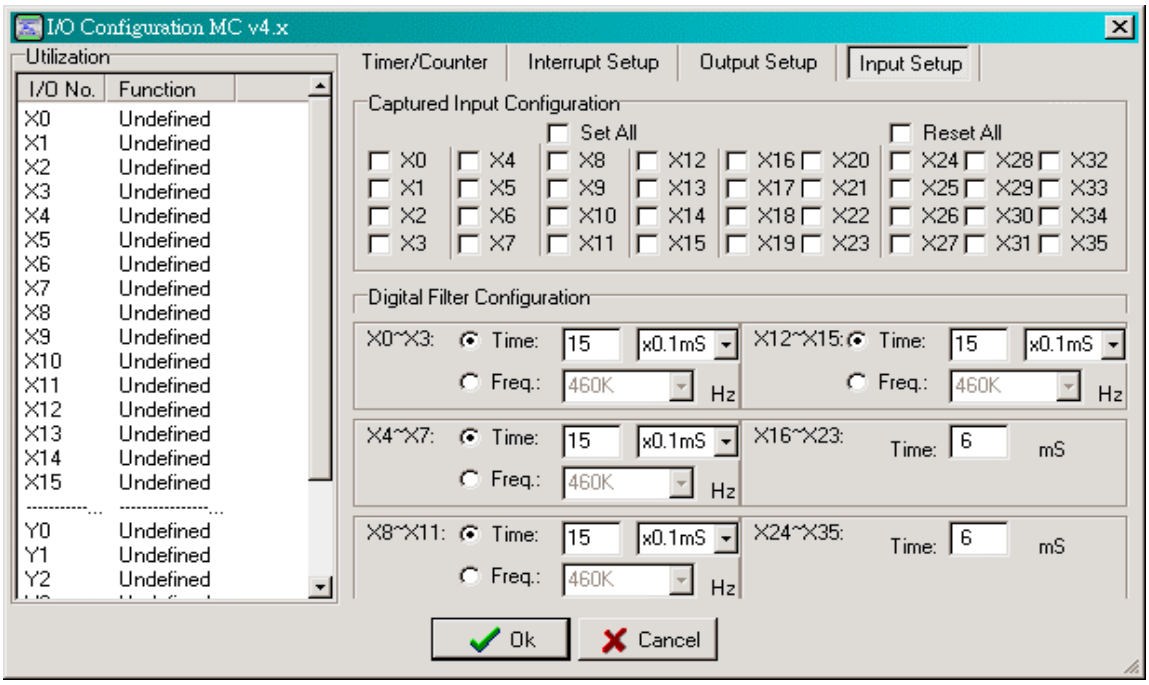
Captured Input

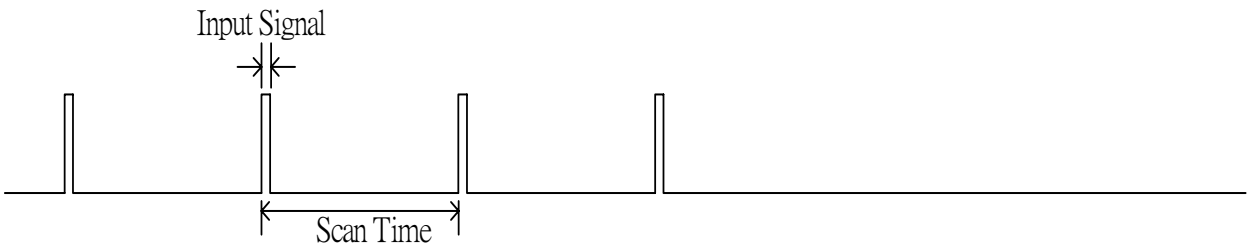
- The FBs series PLC can support up to 36 points of captured input (X0~X35) depending on the main unit. The inputs X0~X15 can be configured as the hardware interrupt input for fast response application, and the captured inputs are for low frequency but short duration (less than 1 scan time) input signal.

- The procedures to configure the captured input as followings :
  .Executing WinProladder software
  .Enter "System Configure" → "I/O Configure" → "Input Setting", then the display will be shown as below :



- When the input is configured as the captured input and used for counting application, it is necessary that the input signal period must be greater than 2 scan time for correct counting. For example the input frequency is 50Hz, then the scan time of PLC must be less than 10mS for counting without loss.

- The captured input can get the input signal which duration is less than 1 sacn time of PLC.

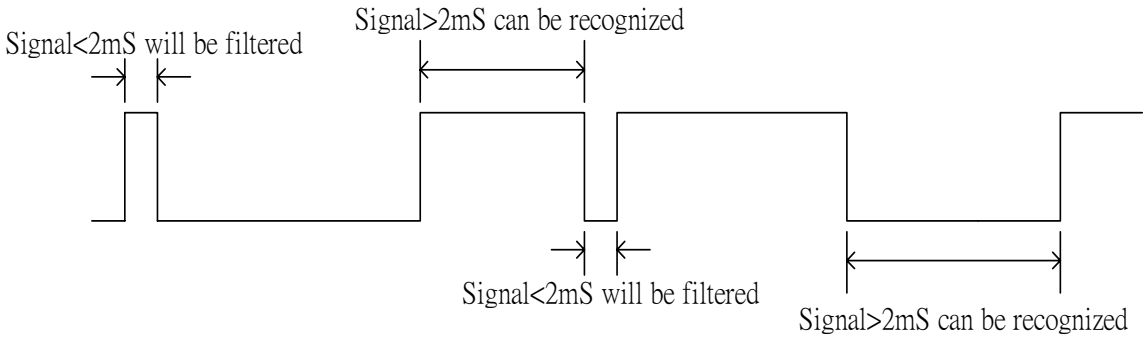


Digital Filter for Digital Inputs

- The FBs series PLC main unit supports the captured input function as mentioned above, except this, it also supplies the digital filtering function for digital inputs X0~X35. There are 6 groups of digital inputs { (X0~X3)、(X4~X7)、(X8~X11)、(X12~X15)、(X16~X23)、(X24~X35) } for filtering setting.

- There are 2 methods for digital filtering, one is the frequency domain, the other is the time domain. The filtering setting for upprer four groups of digital inputs (X0~X15) can be either frequency domain or time domain; while in frequency domain, it supports the range of 14KHz～1.8MHz in total 8 selections; while in time domain, it supports the range of 1~15×1mS or 1~15×0.1mS selections. The last two groups of digital inputs (X16~X35) only supports the time domain, and the selections are 1~15×1mS.
  By time domain, the duration of input signal must be greater than the filtering time, then the PLC can get the input signal; by frequency domain, the frequency of input signal must be less than the filtering frequency, then the PLC can get the input signal.

Example 1: When the filtering time is 2mS, if the ON or OFF duration is less than 2mS, it will lose the ON or OFF signal.



Example 2: When the filtering frequency is 28KHz, if the input frequency is greater than 28KHz, it will lose the input signal.